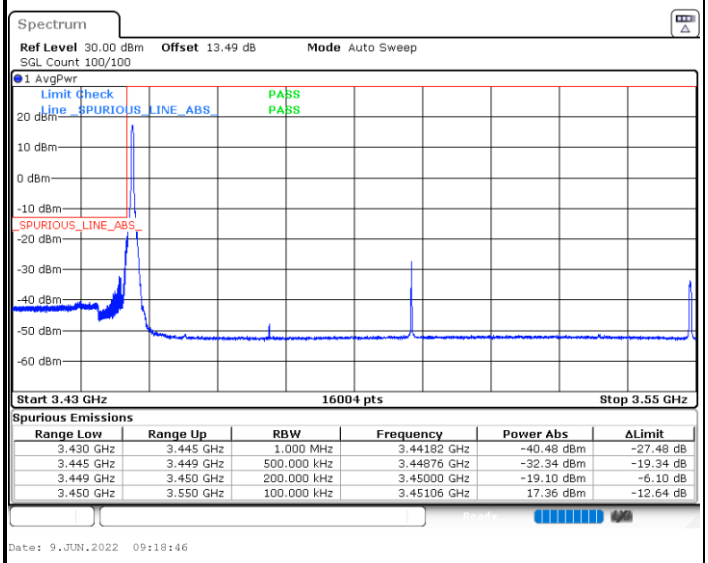
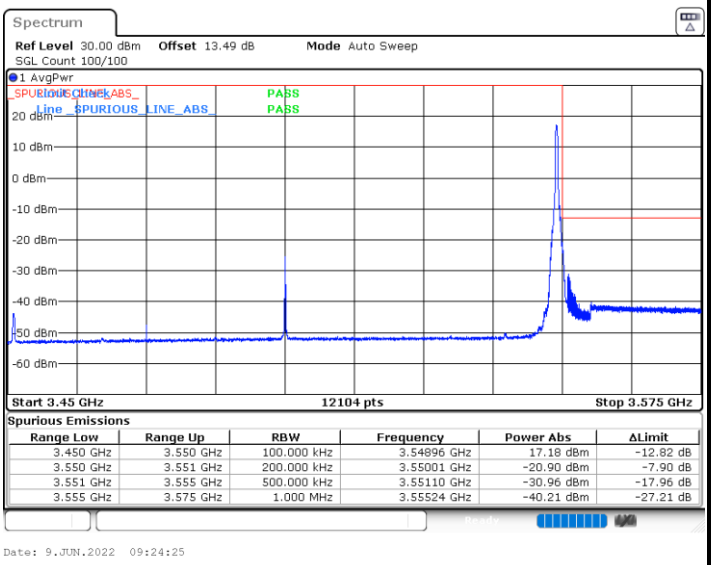
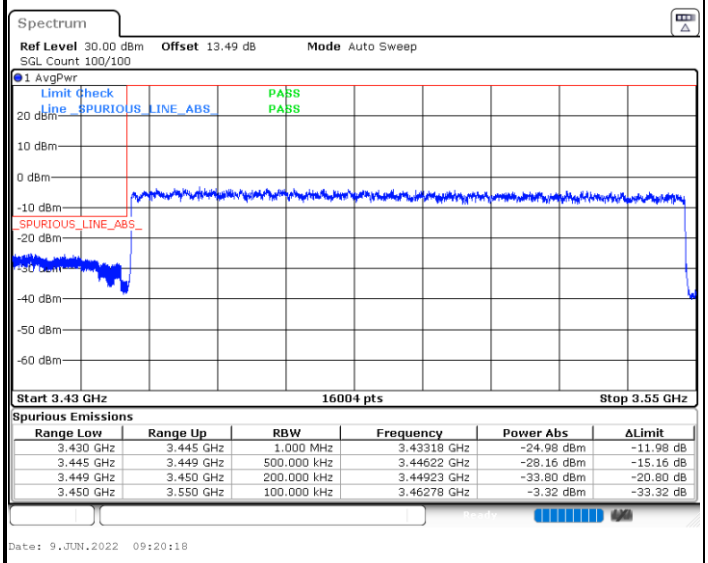
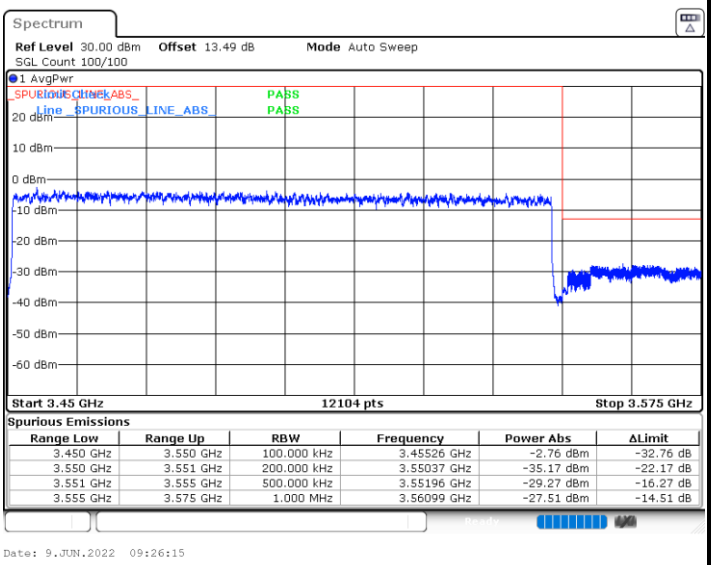
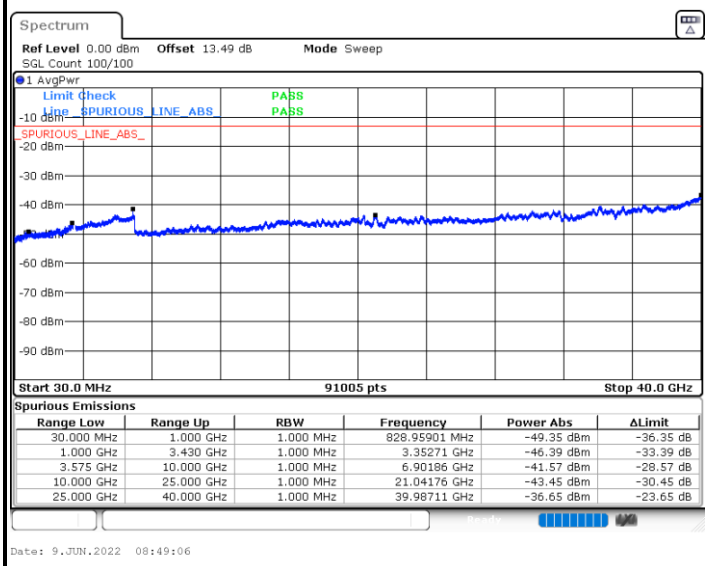
| FR1 n78 / 100MHz / DFT-S OFDM / QPSK | |
|---|---|
| **Lowest Band Edge / 1RB0** | **Highest Band Edge / 1RBmax** |
|  |  |
| **Lowest Band Edge / Full RB** | **Highest Band Edge / Full RB** |
|  |  |

# Conducted Spurious Emission

## FR1 n78 / 20MHz / DFT-S OFDM / BPSK

### Lowest Channel / 1RB1




Spurious Emissions

| Range Low | Range Up | RBW | Frequency | Power Abs | ΔLimit |
|---|---|---|---|---|---|
| 30.000 MHz | 1.000 GHz | 1.000 MHz | 828.95901 MHz | -49.35 dBm | -36.35 dB |
| 1.000 GHz | 3.430 GHz | 1.000 MHz | 3.35271 GHz | -46.39 dBm | -33.39 dB |
| 3.575 GHz | 10.000 GHz | 1.000 MHz | 6.90186 GHz | -41.57 dBm | -28.57 dB |
| 10.000 GHz | 25.000 GHz | 1.000 MHz | 21.04176 GHz | -43.45 dBm | -30.45 dB |
| 25.000 GHz | 40.000 GHz | 1.000 MHz | 39.98711 GHz | -36.65 dBm | -23.65 dB |

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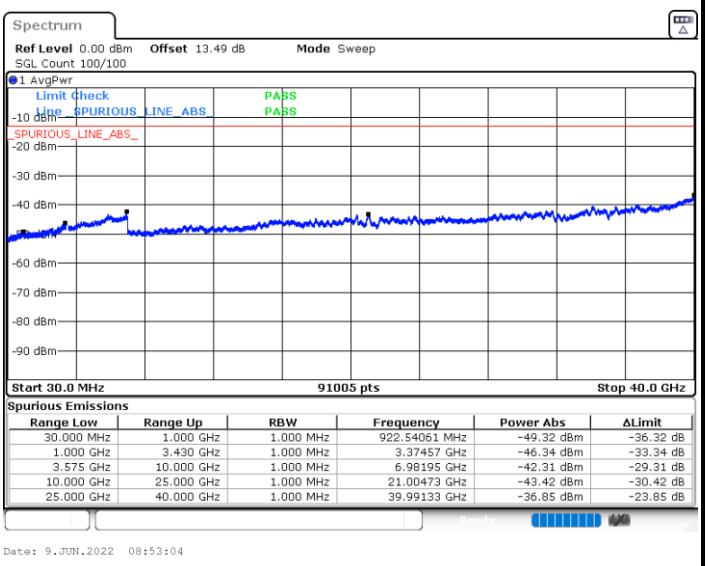
### Middle Channel / 1RB1




Spurious Emissions

| Range Low | Range Up | RBW | Frequency | Power Abs | ΔLimit |
|---|---|---|---|---|---|
| 30.000 MHz | 1.000 GHz | 1.000 MHz | 922.54061 MHz | -49.32 dBm | -36.32 dB |
| 1.000 GHz | 3.430 GHz | 1.000 MHz | 3.37457 GHz | -46.34 dBm | -33.34 dB |
| 3.575 GHz | 10.000 GHz | 1.000 MHz | 6.98195 GHz | -42.31 dBm | -29.31 dB |
| 10.000 GHz | 25.000 GHz | 1.000 MHz | 21.00473 GHz | -43.42 dBm | -30.42 dB |
| 25.000 GHz | 40.000 GHz | 1.000 MHz | 39.99133 GHz | -36.85 dBm | -23.85 dB |

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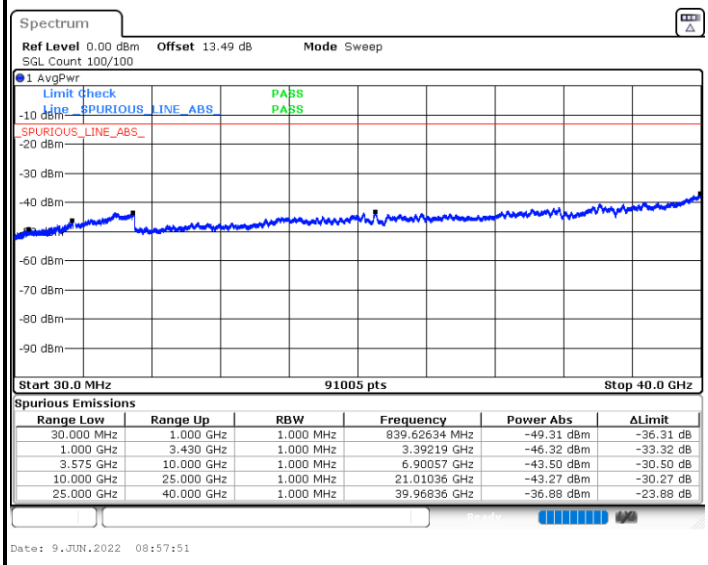
### Highest Channel / 1RB1




Spurious Emissions

| Range Low | Range Up | RBW | Frequency | Power Abs | ΔLimit |
|---|---|---|---|---|---|
| 30.000 MHz | 1.000 GHz | 1.000 MHz | 839.62634 MHz | -49.31 dBm | -36.31 dB |
| 1.000 GHz | 3.430 GHz | 1.000 MHz | 3.39219 GHz | -46.32 dBm | -33.32 dB |
| 3.575 GHz | 10.000 GHz | 1.000 MHz | 6.90057 GHz | -43.50 dBm | -30.50 dB |
| 10.000 GHz | 25.000 GHz | 1.000 MHz | 21.01036 GHz | -43.27 dBm | -30.27 dB |
| 25.000 GHz | 40.000 GHz | 1.000 MHz | 39.96836 GHz | -36.88 dBm | -23.88 dB |

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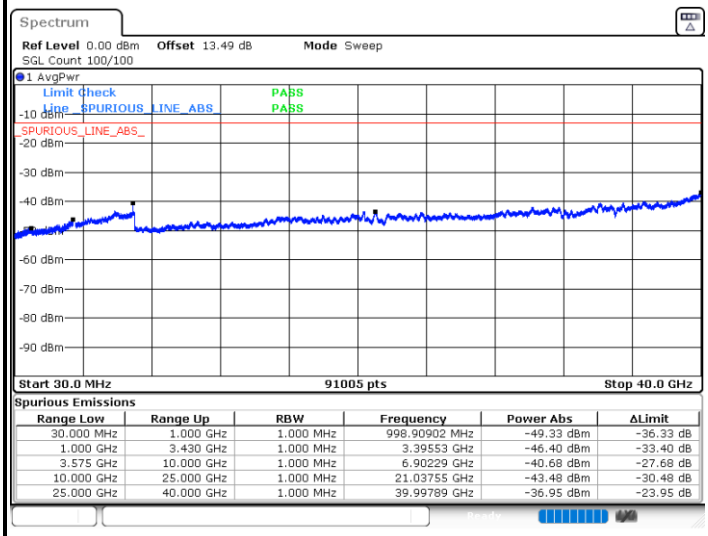
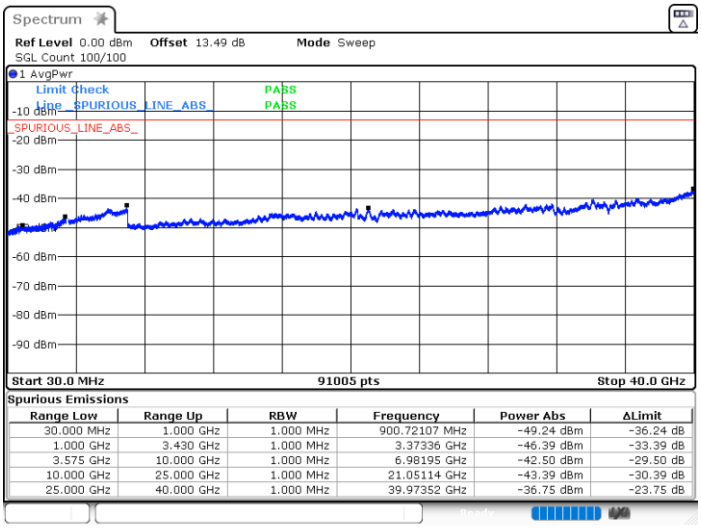
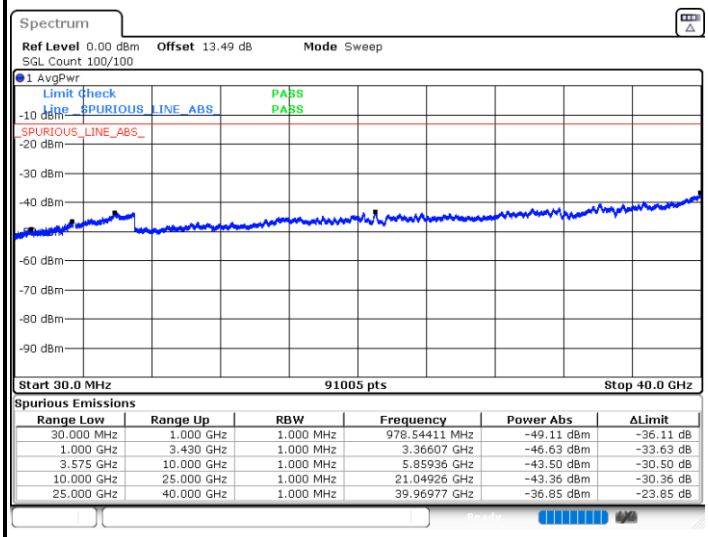
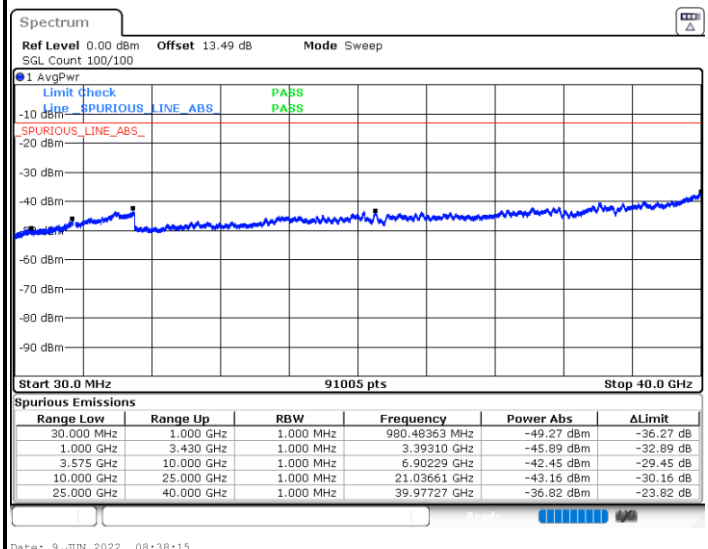
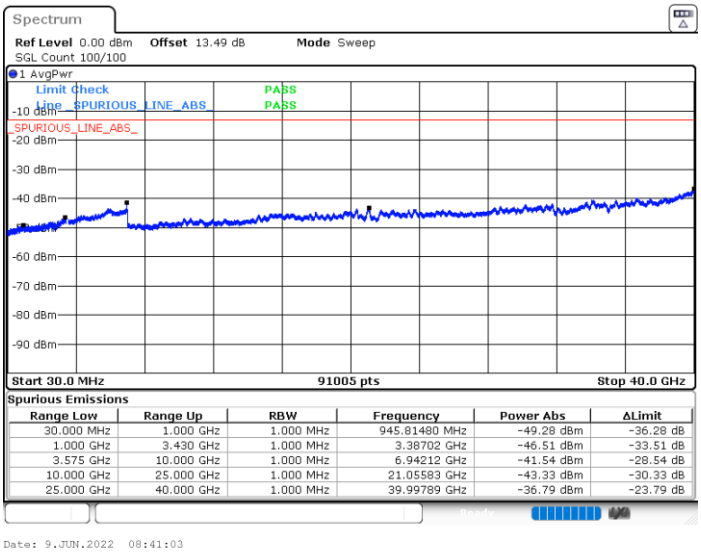
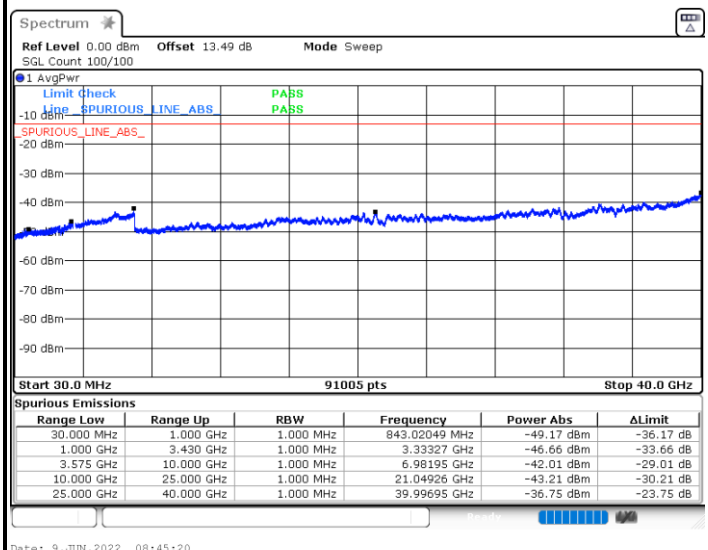
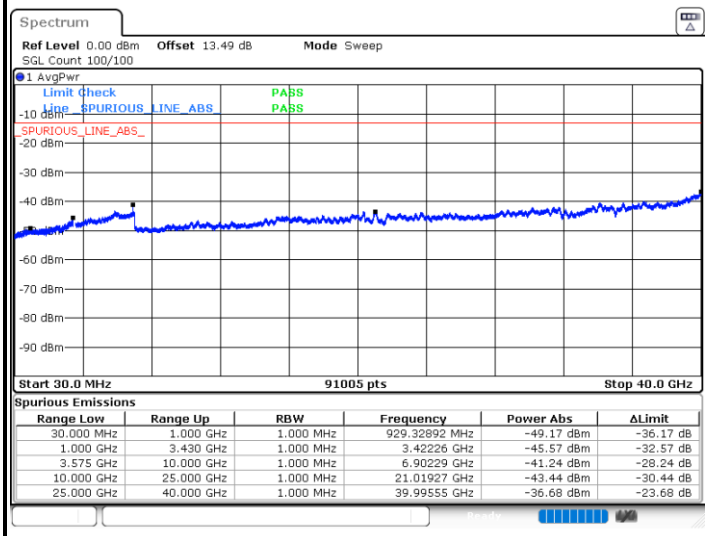
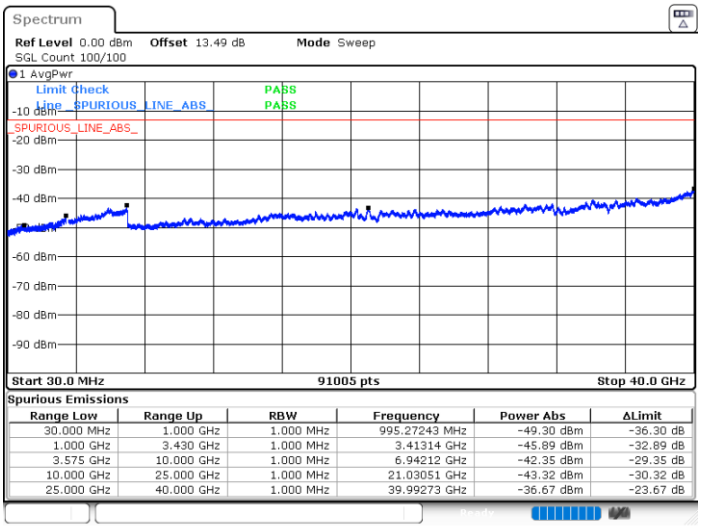
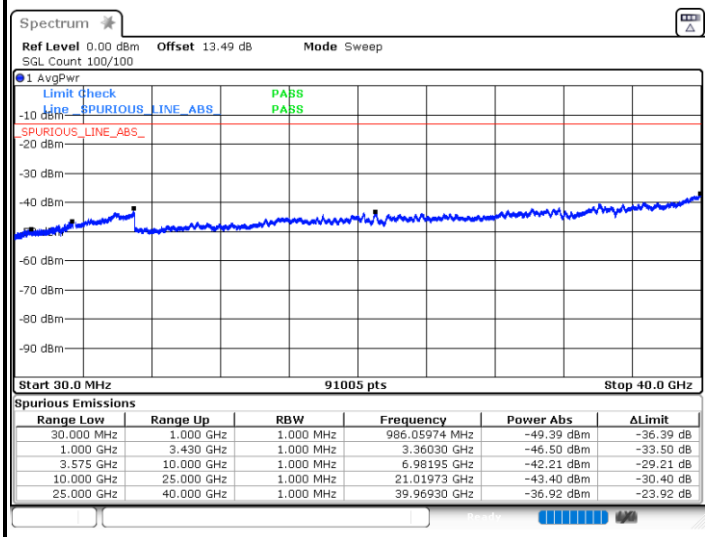
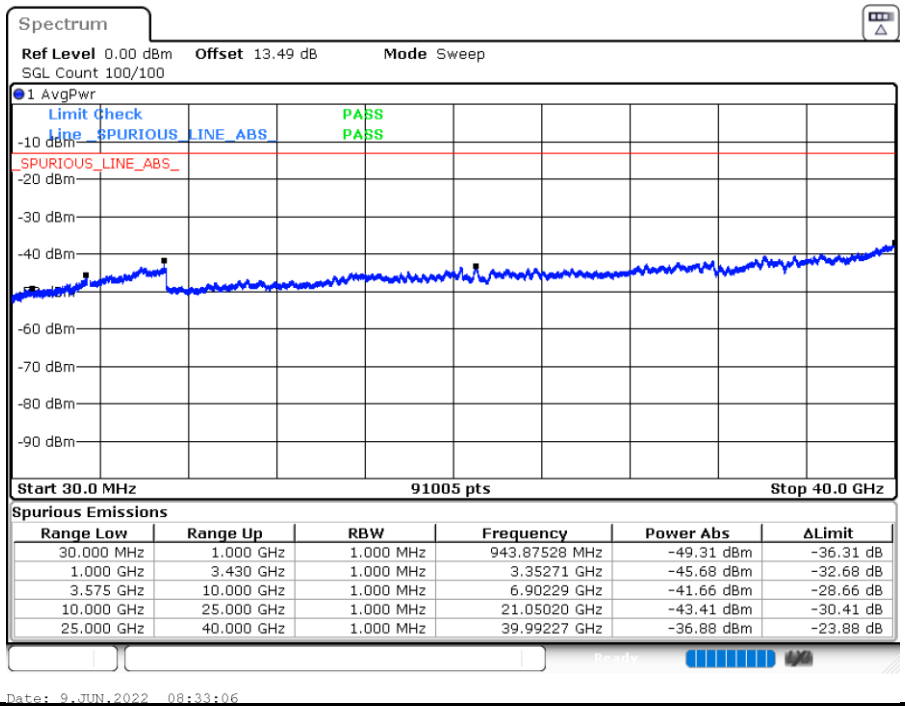
| FR1 n78 / 20MHz / DFT-S OFDM /QPSK | |
|---|---|
| **Lowest Channel / 1RB1** | **Middle Channel / 1RB1** |
|  |  |
| **Highest Channel / 1RB1** | |
|  | |

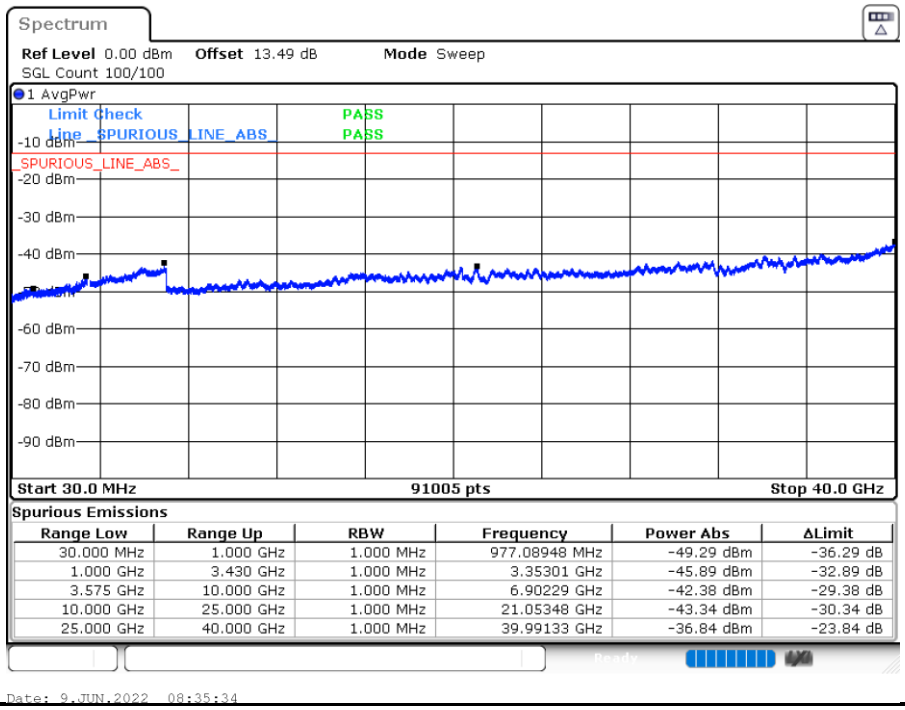
| FR1 n78 /60MHz / DFT-S OFDM / BPSK | |
|---|---|
| **Lowest Channel / 1RB1** | **Middle Channel / 1RB1** |
|  |  |
| **Highest Channel / 1RB1** | |
|  | |

| FR1 n78 /60MHz / DFT-S OFDM /QPSK | |
|---|---|
| **Lowest Channel / 1RB1** | **Middle Channel / 1RB1** |
|  |  |
| **Highest Channel / 1RB1** | |
|  | |

| FR1 n78 / 100MHz / DFT-S OFDM /BPSK |
|---|
| Middle Channel / 1RB1 |



| FR1 n78 / 100MHz / DFT-S OFDM / QPSK |
|---|
| Middle Channel / 1RB1 |



# Frequency Stability

| Test Conditions | | FR1 n78 (QPSK) / Middle Channel | Limit |
|---|---|---|---|
| Temperature (°C) | Voltage (Volt) | BW 100MHz | Note 2. |
| | | Deviation (ppm) | Result |
| 50 | Normal Voltage | 0.0063 | PASS |
| 40 | Normal Voltage | 0.0047 | |
| 30 | Normal Voltage | 0.0039 | |
| 20(Ref.) | Normal Voltage | 0.0000 | |
| 10 | Normal Voltage | 0.0012 | |
| 0 | Normal Voltage | 0.0031 | |
| -10 | Normal Voltage | 0.0038 | |
| -20 | Normal Voltage | 0.0046 | |
| -30 | Normal Voltage | 0.0015 | |
| 20 | Maximum Voltage | 0.0028 | |
| 20 | Normal Voltage | 0.0019 | |
| 20 | Battery End Point | 0.0036 | |

**Note:**

**1.** Normal Voltage =3.87 V. ; Battery End Point (BEP) =3.55 V. ; Maximum Voltage =4.45 V.

**2.** Note: The frequency fundamental emissions stay within the authorized frequency block.

# Appendix B. Test Results of Radiated Test

## Radiated Spurious Emission

| Test Engineer : | Carry Xu | Temperature : | 23~25℃ |
|---|---|---|---|
| | | Relative Humidity : | 41~42% |

Note: Pre-scanned harmonic for the different antenna combinations, we choose the worst antenna mode to perform final test.

| n78 SA / NR 100MHz / QPSK / ANT3 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Channel | Frequency ( MHz ) | EIRP ( dBm ) | Limit ( dBm ) | Over Limit ( dB ) | S.G. Power ( dBm ) | TX Cable loss ( dB ) | TX Antenna Gain (dBi) | Polarization (H/V) |
| Middle | 6900 | -52.18 | -13 | -39.18 | -62.66 | 2.76 | 13.24 | H |
| | 10356 | -53.22 | -13 | -40.22 | -62.81 | 3.42 | 13.01 | H |
| | 13818 | -60.68 | -13 | -47.68 | -70.29 | 3.83 | 13.44 | H |
| | 17256 | -49.54 | -13 | -36.54 | -58.56 | 4.41 | 13.43 | H |
| | 6900 | -59.59 | -13 | -46.59 | -70.03 | 2.80 | 13.24 | V |
| | 10368 | -61.85 | -13 | -48.85 | -71.40 | 3.46 | 13.01 | V |
| | 13818 | -61.28 | -13 | -48.28 | -70.84 | 3.88 | 13.44 | V |
| | 17256 | -51.12 | -13 | -38.12 | -60.09 | 4.46 | 13.43 | V |

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

| EN-DC_13A_n78A / LTE 10MHz + NR 100MHz / QPSK / ANT0(LTE) & ANT3(NR) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Channel | Frequency ( MHz ) | EIRP ( dBm ) | Limit ( dBm ) | Over Limit ( dB ) | S.G. Power ( dBm ) | TX Cable loss ( dB ) | TX Antenna Gain (dBi) | Polarization (H/V) |
| Middle | 6900 | -51.88 | -13 | -38.88 | -62.36 | 2.76 | 13.24 | H |
| | 10356 | -57.67 | -13 | -44.67 | -67.26 | 3.42 | 13.01 | H |
| | 13806 | -57.21 | -13 | -44.21 | -66.82 | 3.83 | 13.44 | H |
| | 17256 | -49.80 | -13 | -36.80 | -58.82 | 4.41 | 13.43 | H |
| | 6900 | -60.21 | -13 | -47.21 | -70.65 | 2.80 | 13.24 | V |
| | 10356 | -58.20 | -13 | -45.20 | -67.75 | 3.46 | 13.01 | V |
| | 13806 | -58.50 | -13 | -45.50 | -68.06 | 3.88 | 13.44 | V |
| | 17256 | -53.32 | -13 | -40.32 | -62.29 | 4.46 | 13.43 | V |

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

**——— THE END ———**